

CLAIMS

What is claimed is:

- 1 1. A method for driving a display, comprising the steps of:
 - 2 (a) storing a voltage value in an analog memory associated with each pixel of a
 - 3 display, wherein each of the pixels has a comparator associated therewith;
 - 4 (b) applying a reference voltage and the voltage values stored in the analog memory
 - 5 to the comparators of the pixels;
 - 6 (c) comparing the voltage values with the reference voltage for determining which
 - 7 of the voltage values matches the reference voltage; and
 - 8 (d) changing the state of the pixels whose voltage values match the reference
 - 9 voltage.
- 1 2. The method as recited in claim 1, wherein the display is an active matrix panel
- 2 display.
- 1 3. The method as recited in claim 1, and further comprising the step of applying
- 2 illumination.
- 1 4. The method as recited in claim 3, wherein the reference voltage is changed as a
- 2 function of time for causing each pixel to change state at a desired time.
- 1 5. The method as recited in claim 1, wherein the states of groups of the pixels are
- 2 changed, and further comprising the step of changing the states of the groups of
- 3 the pixels in multiple phased cycles.
- 1 6. The method as recited in claim 5, wherein the groups are interspersed on the
- 2 display to avoid flicker at low update rates.

- 1 7. The method as recited in claim 1, wherein the pixel provides illumination.
- 1 8. The method as recited in claim 7, wherein the display is an organic light
2 emitting diode display (OLED).
- 1 9. The method as recited in claim 8, wherein the states of groups of the pixels are
2 changed, and further comprising the step of changing the states of the groups of
3 the pixels in multiple phased cycles.
- 1 10. The method as recited in claim 9, wherein the groups are interspersed on the
2 display to avoid flicker at low update rates.
- 1 11. The method as recited in claim 1, wherein the voltage value in at least a portion
2 of the analog memories is adjusted for providing gamma correction.
- 1 12. A system for driving a display, comprising:
2 (a) a plurality of pixels;
3 (b) an analog memory associated with each pixel of a display, wherein a voltage
4 value associated with each of the pixels is stored in the analog memory;
5 (c) a comparator associated with each of the pixels, wherein the comparators
6 compare the voltage values with a reference voltage for determining which of
7 the voltage values match the reference voltage; and
8 (d) logic for changing the state of the pixels whose voltage values match the
9 reference voltage.
- 1 13. The system as recited in claim 12, wherein the display is an active matrix panel
2 display.

- 1 14. The system as recited in claim 12, and further comprising logic that applies
2 illumination after the change of state of the at least one pixel.
- 1 15. The system as recited in claim 14, wherein the reference voltage is changed as a
2 function of time for causing each pixel to change state at a desired time.
- 1 16. The system as recited in claim 12, wherein the states of groups of the pixels are
2 changed in multiple phased cycles.
- 1 17. The system as recited in claim 16, wherein the groups are interspersed on the
2 display to avoid flicker at low update rates.
- 1 18. The system as recited in claim 12, wherein the pixel provides illumination.
- 1 19. The system as recited in claim 18, wherein the display is an organic light
2 emitting diode display (OLED).
- 1 20. The system as recited in claim 19, wherein the states of groups of the pixels are
2 changed, and further comprising the step of changing the states of the groups of
3 the pixels in multiple phased cycles.
- 1 21. The system as recited in claim 20, wherein the groups are interspersed on the
2 display to avoid flicker at low update rates.
- 1 22. The system as recited in claim 12, wherein the voltage value in at least a portion
2 of the analog memories is adjusted for providing gamma correction.

- 1 23. The system as recited in claim 12, wherein each of the pixels includes a level
- 2 shifter for changing a lower voltage to a higher voltage for output to a pixel
- 3 electrode of the associated pixel.

004767-034E260